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TEED 540, summer 2012  
Student Teaching Nugget Handout

Directions for how to play “Negative Number Top-It” and “What’s My Rule Telephone”

### **Negative Number Top-It (aka, War)**

**Target:** Students recognize that negative numbers closer to zero are a higher value than negative numbers further away from zero.

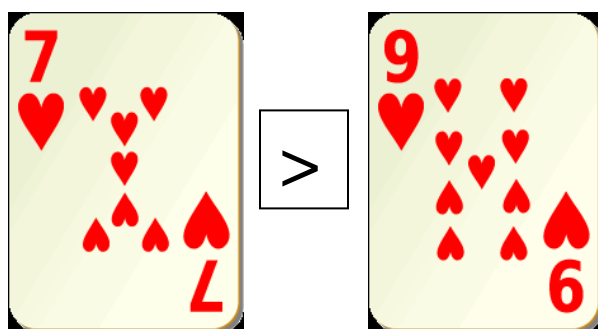
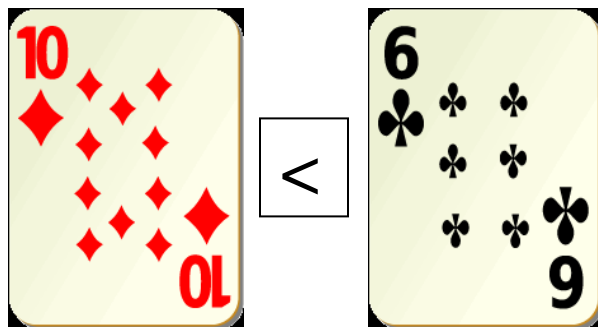
**Goal:** Get all the

**Materials:** Normal 52 deck of cards for every 2 students

**Set-up:** First, deal out all the cards to each player, face down.

**Game-play:** Played just like Top-It, or War, except that red cards are negative numbers. Each player simultaneously flips over their top card. The player who plays the card of greater value takes both cards and puts them at the bottom of their pile. Aces are high, meaning a black ace is worth 13, while a red ace is worth -13.

If students play a card of equal worth, they are at war. Leave the cards out, and each player puts their next three cards out, face down. Then, each player flips over one more card, face up. The player who plays the card of greater value takes all of the cards on the table (10 cards total). If the players reveal a card of equal value again, then they are at war again, and place another 3 cards face down, and reveal the 4<sup>th</sup>.





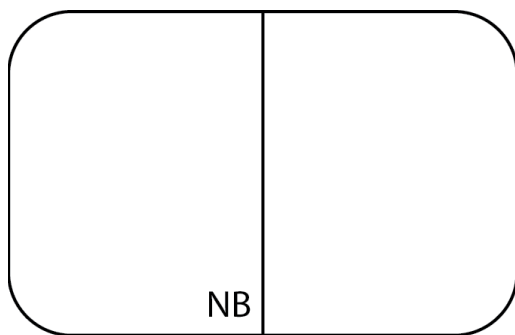
## What's My Rule Telephone

**Target:** Students create an input/output table from a rule or algebraic expression, and use input/output tables to create rules.

**Goal:** Get your original whiteboard back with a rule or input/output table that accurately describes your original rule.

**Materials:** Individual whiteboards and dry erase markers for every student.

**Set-up:** Table groups of 4 or 5 works best. Students should draw a line down the middle of their whiteboard, and they should initial or tag their board in the corner somewhere.



**Game-play:** Each student creates a rule on the left side of their whiteboard. Depending on grade and ability level, students can create 1 or 2 step rules. **Note:** Creating specific guidelines is important, such as, “1 step only, with addition up to 9.” Strict guidelines will help keep rules from getting too difficult or into negative numbers until students are ready.

Students should not let other students see their rule, and should turn their whiteboards upside down when they have finished. When everyone at the table group has completed a rule, each player passes their whiteboard to the player on the left.

Players now turn their boards over and create an input/output table using their classmate's rule on the right side of the board. The teacher can either put a list of inputs for students to use, or can limit them to inputs under 13. When the student completes the table with at least 4 input/output values (5 is also a good number), they then erase the rule, and turn their board upside down. When everyone at the table group has their boards turned upside down, everyone can pass their board to the person on their left.

Each player now turns their board face up and uses the input/output table to derive a rule. Students must check that the rule works for each input/output pair. Depending on grade and ability level, rules should be written as algebraic expressions.

Play continues until each student gets their initial (and initialed) board back. Students take note of whether or not their rule remained the same throughout its passage. Reward groups in which all students successfully relayed their rules through the telephone.